

ITEM 412 SEAL COAT

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412.01 Description. This work consists of constructing a wearing surface composed of 1 or more applications of bituminous material and cover aggregate, in place and compacted.

412.02 Bituminous Material. Furnish bituminous material, of the type and grade specified, conforming to 702. When 2 or more grades of one type of bituminous material are specified in the contract, the Engineer will determine the grade to be used.

412.03 Cover Aggregate Material. Use cover aggregate conforming to 703.05. The sizes of aggregate shall be No. 6, No. 67, No. 8 or No. 9, as specified. The surface moisture of the cover aggregate shall not exceed that which will permit the proper coating and adhesion of the type of bituminous material specified, except that the Contractor may treat the bituminous material with an agent, conforming to AASHTO T 59, that will assist in obtaining sufficient coating to hold the aggregate in place, provided the Engineer approves such treatment.

412.04 Weather Limitations. Do not apply bituminous material when the temperature of the atmosphere is below 60° F (16° C) nor when the air temperature within the preceding 24 hours has been below 40° F (4° C). Do not apply emulsified asphalt 401.09 between October 1 and May 15 of the succeeding year except by permission of the Engineer. Do not apply bituminous material while the surface is wet or when the humidity or impending weather conditions are such that proper curing may not be obtained. The Contractor may apply emulsified asphalt to a damp surface with the Engineer's approval.

412.05 Equipment. Use bituminous distributors conforming to 407.03. Use pneumatic tire roller conforming to 401.13. Inflate tires to a pressure producing a minimum average contact pressure of 55 psi (380 kPa).

When using pneumatic tire rollers on a seal coat with 405, use in conjunction with three-wheeled rollers conforming to 401.13.

Use either self-propelled or truck mounted aggregate spreaders, equipped with hoppers, revolving cylinders and adjustments necessary to produce a uniform distribution of particles at the specified rate.

412.06 Preparation of Surface. Clean the pavement according to 407.05.

412.07 Protection of Curbs and Structures. When applying bituminous material, protect the exposed surfaces of curbs, curb and gutter or other structures from being marred or defaced.

412.08 Applying Bituminous Material. Use a pressure distributor to apply the bituminous material, heated to a temperature within the specified range. Apply the material with sufficient uniformity to prevent ridging or streaking in the completed surface. The Contractor may adjust the rate of application specified in the contract with the approval of the Engineer when necessary to result in satisfactory embodiment and retention of the cover aggregate.

At the beginning and at the end of a contract section, start and stop the application on paper or other suitable material sufficiently wide enough to permit full application on the surface being treated. Make transverse and longitudinal laps in such a manner that the texture of the finished surface will be uniform and continuous.

Prior to starting the application of bituminous material, ensure sufficient cover aggregate is available for immediate application.

412.09 Cover Aggregate. Immediately following the application of the bituminous material, apply cover aggregate uniformly without ridges or laps at the specified rate adjusted as directed by the Engineer to produce a minimum of excess loose particles. Spread aggregate in such manner that the tires of the truck or aggregate spreader at no time contact the uncovered and newly applied bituminous material. Prior to rolling, correct deficiencies in the application of cover aggregate in a manner satisfactory to the Engineer.

Begin rolling immediately behind the spreader and perform 4 complete coverages. When three-wheeled rollers are required, use them for at least the initial coverage. A roller coverage shall consist of 2 trips or passes over the same area. Do not operate rollers at speeds that cause pick up or dislodging of aggregate particles.

Following the completion of rolling, protect the surface from traffic damage during the period of time required for the bituminous material to cure sufficiently to prevent dislodging of the aggregate particles by normal traffic. During this period, correct deficiencies in cover aggregate by spreading additional aggregate or by light brooming as directed by the Engineer.

Sweep excess cover aggregate from the surface by means of rotary brooms soon after the bituminous material has cured sufficiently to prevent dislodging of the embedded aggregate particles.

412.10 Method of Measurement. The City will measure the number of tons (metric tons) of aggregate and the gallons (liters) of bituminous material in place, completed and accepted, according to 109.

412.11 Basis of Payment. The City will pay for accepted quantities, complete in place, at the contract prices as follows:

Item	Unit	Description
412	Gallon (Liters)	Seal Coat Bituminous Material
412	Ton (Metric Ton)	Seal Coat Cover Aggregate